

REMARKS/ARGUMENTS

This is in response to the Official Action mailed July 12, 2010 for the above-captioned application in view of the Advisory Action mailed September 28, 2010. Reconsideration of the application as amended is respectfully requested.

Claims 30, 31, 33, 35, 40 and 42 stand rejected under 35 USC § 112, first paragraph, as lacking written description and enablement. As pointed out in earlier-reported interview with the Examiner, this rejection appears to be based on an incorrect understanding of the number of malate dehydrogenase sequences disclosed in the application. Seq ID No. 271 is not the only such sequence disclosed, nor is it the only one for *Trifolium repens*.

Page 10, lines 17-23 include a listing of the sequences within the application for MDH encoding nucleotides. The sequences listed in claim 33 are all within this list, and comparison with the sequence numbers and the sequence list shows that they all are sequences for white clover, i.e. *Trifolium repens*. The figures in the application (particularly Figs. 55-85) show comparisons for the nucleic acid sequences of *T. repens* MDH. Thus, Applicants submit that there is an ample number of examples, and a teaching showing the common structure sufficient to show possession of the genus and to provide enablement. Since all of the examples are to *T. repens* sequences, claim 30 has been amended to include the limitations of claim 31. Based on the discussion at the interview, it is believed that this, plus the additional arguments should overcome these rejections.

Claims 31, 35, 40-42, 58-59 and 61-63 were rejected under 35 USC § 112, because they retained a reference to a nucleic acid fragment and therefore lacked antecedent basis. In each of these claims an appropriate correction has been made. In addition, claim 35 has been amended to independent form by repeating the language of claim 33 within the claim and eliminating the reference to claim 30 and the basis for the Objection set forth on Page 3 of the office action. Claims 42, 49, and 63 have been amended in view of the Examiner's remarks.

Claims 33 and 60 were rejected under 35 USC § 112, second paragraph, based on the recitation of functional activity. Applicants believe that this rejection was intended to be addressed to claim 35 rather than claim 60 since claim 60, which recites a specific coding sequence, is objected to in the current advisory action. In the present amendment, claims 33 and 35 have been amended to address the Examiner's concerns as rephrased in the advisory action. Specifically the recitation of functionally active variants has been divided into two parts: ¶ (d) which refers to variants of the coding strand of ¶ (a) in which the variant still has MDH activity, and ¶ (e) which refers to variants of the sequences of ¶ (b) and (c) which are functionally active to modify expression of the MDH polynucleotide of ¶ (a).

In the advisory action, the examiner acknowledges that there is disclosure of the variants as described in amended ¶¶ (d) and (e). Accordingly, this amendment is not believed to give rise to any new issues, and should be entered as placing the application in form for allowance.

To address the withdrawn claims, Applicants have canceled claims 43, 51-54 and 56 without prejudice. Withdrawn claims 44, 45 and 49 relate to a method of using the nucleic acid claim 30 and are therefore appropriately recombined. Claim 50 relates to a single nucleic polymorphism (SNP) of the sequence of claim 50. Such an SNP is well within the 95% variation of claims 33, and therefore is properly recombined. Withdrawn claim 64, directed to a construct, has been amended to make it dependent on claim 35, and thus to include one of the recited *Trifolium repens* sequences or its antisense, plus nucleic acids encoding one or more of the other two types of enzymes. Thus, claims 64 - 71 are believed to contain all of the limitations of the considered claims, and therefore recombination and allowance of these claims are also requested.

Withdrawn claims 66 and 67 have been amended to be dependent on claim 64, rather than canceled claim 65.

In view of the foregoing, Applicants submit that this application is in form for allowance, and such action is respectfully urged.

Respectfully submitted,

A handwritten signature in cursive script, reading "Marina T. Larson". The signature is written in dark ink and is positioned above a horizontal line.

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